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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,872	10/11/2004	David E. McCalvin	68.0450	5871

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SCHLUMBERGER RESERVOIR COMPLETIONS
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EXAMINER

NEUDER, WILLIAM P

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/711,872	Applicant(s) MCCALVIN, DAVID E.	
	Examiner William P. Neuder	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28,30,31,33-60 and 62 is/are rejected.
- 7) ☒ Claim(s) 29,32,61 and 64 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/13/06,12/14/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claims 1 and 33 are objected to because of the following informalities: Line 2 of these claims read, "a safety valve assembly is controllable". The claims should read—a safety valve assembly controllable--.. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3-6,9-12,23,25-28,30,31,33,35-38,41-44,55,57-60,62 and 63 are rejected under 35 U.S.C. 102(b) as being anticipated by Robison et al 6,435,282.

Robison discloses a safety valve assembly (fig. 1) controllable to selectively isolate a formation. A pressure sensor 60 is located in the safety valve assembly to measure pressure near the safety valve. As to claims 3 and 25, pressure sensor 60 is located near valve closure element 48. As to claims 4,27,36 and 59, the sensor is located within 5 feet of the closure element. As to claims 5 and 37, the sensors and closure element are housed within a housing. As to claims 6,28,38 and 60, the valve is capable of being used over 5,000 feet downhole. As to claim 9, sensor 60 is capable of measuring a pressure in a tubing string and an annulus pressure. As to claims 10,26,42 and 58, a telemetry circuit 58 is provided. As to claims 11,31,43 and 63, a plurality of sensors can be used. The pressure sensors can measure the annulus pressure and

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the pressure in a control line. As to claim 23 and 55, the method comprises running the pressure or temperature sensor with the safety valve. As to claim 30, the sensor is used to measure the pressure in the tubing string or the annulus. As to claim 33, the sensors 60 can be temperature sensors as well as pressure sensors. As to claims 35 and 57, sensor 60 is located near the closure element 48. As to claims 41 and 62, the sensor is capable of measuring the temperature in the tubing string and the annulus. As to claim 44, the sensors are capable of measuring the annulus temperature and the temperature in a control line.

Claims 1-9,13-20,23-25,27,28 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Rawson et al 6,269,874.

Rawson discloses a downhole safety valve (see fig. 5) having a pressure sensor located in the inlet (see col. 5, line 1). As to claims 2 and 24, the safety valve is of the flapper type. As to claims 3 and 25, the sensor is located in the inlet, which is near the closure element. As to claims 4,15 and 27, the sensor is located at the closure element so it is within 5 feet. As to claim 5, a housing surrounds the closure element and the sensor. As to claims 6,16 and 28, the safety valve is capable of being used over 5,000 feet downhole. As to claim 7, the valve closure element is capable of being controlled by pressure in a hydraulic line extending to the surface. As to claim 8, the sensor is capable of measuring pressure in a hydraulic line. As to claims 9,20 and 30, the sensor is capable of measuring pressure in a tubing string and the annulus. As to claim 13, the flapper located in the housing isolates a formation from the surface. As to claim 14, the housing is threaded to the tubing string (see fig. 4) so it is adapted to be

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detached. As to claim 17, a flow tube and an actuator to control movement of the flow tube are provided (see fig. 5). As to claim 18, the actuator is capable of moving the flow tube in response to pressure in a hydraulic line. As to claim 19, the sensor is capable of measuring pressure in the hydraulic line. As to method claim 23, the sensor is run into the well with the safety valve.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11,12,21,22 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rawson et al (described above).

As to claims 11,21 and 31, it would have been considered an obvious design choice to use a plurality of sensors instead of one so that pressure could be measures at different points. As to claims 12 and 22, the pressure sensors are capable of measuring the annulus pressure and the pressure in a hydraulic line.

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Claims 33-60,62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rawson et al in view of Robison et al (both described above).

These claims are substantially identical to the claims rejected above except for using a temperature sensor instead of a pressure sensor. Robison et al teaches that the sensors used could be either pressure or temperature. It would have been considered obvious to use a temperature sensor instead of a pressure sensor in Rawson et al in view of Robison's teaching that either a pressure or temperature sensor can be used.

Allowable Subject Matter


Claims 29,32,61 and 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Neuder whose telephone number is 571-272-7032. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William P Neuder
Primary Examiner
Art Unit 3672

W.P.N.